

doses, improves the general condition and the patients gain weight. The author believes that salvarsan is contraindicated in diseases of the heart, bloodvessels, kidneys, liver, and brain, unless it be given in very minute initial dosage and increased with great caution. By giving initial doses of from 0.02 to 0.05 gm. salvarsan, he has had very encouraging results in such cases without any toxic effects. Kromayer says that his patients did not seem to do well with combined salvarsan and mercurial treatment, so now he prefers to alternate courses of each. He says there are two great drawbacks to the use of salvarsan: its high price and the inconvenience of intravenous administration. For these reasons, salvarsan ranks below mercury, in practical importance.

The Development of Artificial Pneumothorax.—BALBONI (*Boston Med. and Surg. Jour.*, 1914, clxxi, 147) points out that success in the use of this method of treatment depends on the manner in which the pneumothorax is produced and maintained. It is best to produce the pneumothorax gradually by frequent injections of nitrogen, and to bring it slowly up to the desired volume and pressure. The rapid production of a pneumothorax by large quantities of nitrogen is dangerous as it does not give the adjacent organs time to adjust themselves to the changed conditions; furthermore, the expulsion or sudden evacuation of large quantities of purulent matter may infect the sound lung. The only exception to this is in unilateral hemoptysis where it is desired to control the hemorrhage quickly. It is essential to have a free pleural cavity or one that can be made sufficiently free by subsequent injections to allow complete collapse of the lung. The other organs must be in such a condition as to be able to withstand the extra work thrown upon them. The patient ought to be in a sanatorium under the complete control of the physician. Frequent Roentgen-ray examinations are essential for the treatment. Artificial pneumothorax is not an indifferent procedure and should be undertaken only after the careful consideration of each case. The patient should be informed that the treatment is long, tedious, troublesome and expensive, and not devoid of danger.

The Treatment of Heart Involvement in Syphilis.—BROOKS and CARROLL (*Jour. Amer. Med. Assoc.*, 1914, lxiii, 1456) write concerning the treatment of syphilitic heart infections based on a study of 300 cases. They state that cases of heart involvement in early syphilis may be fully cured irrespective of the character of the lesion by vigorous specific treatment alone and independent of circulatory measures. Even well-established and late cases usually respond to treatment with care, or marked, though perhaps temporary, benefit. In most tertiary instances purely circulatory measures produce but slight benefit unless preceded by or combined with specific medication. Interrupted or inefficient treatment establishes an immunity or resistance on the part of the lesions against the specific drugs employed. Hence the importance of vigorous and carefully systematized treatment. They say that the most satisfactory treatment is one which combines the use of salvarsan with mercury and the iodids. Combined treat-

ment may be unnecessary in early cases but it is essential in late ones. Salvarsan, preferably old salvarsan, produces in most instances the quicker results. It is capable, however, of inducing serious symptoms, and in untried cases of heart involvement it should be administered in small doses until its action has been ascertained, particularly in those lesions characterized by disturbances of rhythm. The authors state that mercury alone may produce apparent cure. Best effects are secured with this drug when its form is from time to time changed. Its use appears to be indispensable in all well-established cases. The iodids are valuable adjuvants in the treatment of these cases, especially in their late stages, but they are apparently without specific action. Permanent injury to the heart must be assumed to have taken place in late cases, even though prompt response to treatment and apparent cure occurs. Successful treatment rests primarily on the recognition of the cause of the disease and on its specific treatment.

The Serum Treatment of Tetanus.—v. BEHRING (*Deutsch. med. Woch.*, 1914, xl, 1833) says that the symptoms of tetanus are due to the action of the tetanus toxin on the central nervous system. The tetanus toxin is able to reach the spinal cord by way of the nerves only by reason of its special affinity for nerve tissue. The transmission by way of the nerve is not rapid and in consequence symptoms are often delayed for considerable periods of time when the path by way of the nerve is a long one. In any case of tetanus the local focus should be excised and tetanus antitoxin should be immediately given in order to neutralize any free toxin. The passage of toxin by way of the nerves should be blocked by resection of the nerves. It is not necessary to amputate the entire limb when interruption of the nerve tract is all that is necessary. The prophylactic treatment by injections of antitoxin may simply delay the development of tetanus which may begin to actively manifest itself when the effect of the antitoxin has worn off. This fact suggests that the repeated administration of antitoxin in suspicious cases is necessary and advisable in order to control the disease.

The Roentgen Treatment of Exophthalmic Goitre.—SIELMANN (*Münch. med. Woch.*, 1914, lxi, 2132) reports 21 cases of exophthalmic goitre treated systematically with the Roentgen rays over periods of from six weeks to six months. The dosage must be very carefully controlled and must be regulated so as not to produce a dermatitis. He recommends this method of treatment when medical treatment fails to benefit before resorting to surgery. In case of no result and if surgery should become necessary the Roentgen treatment may be of great value in supplementing the operative treatment. He reports a number of cases in detail, and states that in his experience of five years with 21 cases only one patient failed to show improvement following the Roentgen treatment. He calls attention to the fact that thyroidectomy may not remove the cause of the disease, since, as yet the part played by the ovaries, the pituitary body and other glands in exophthalmic goitre may be a very important one.